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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,322	12/06/2001	Neil Andrew Cowie	550-290	4863

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Zilka-Kotab, PC
P.O. Box
San Jose, CA 95172-1120

EXAMINER

ZIA, SYED

ART UNIT	PAPER NUMBER
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2131

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/003,322		COWIE ET AL.	
	Examiner		Art Unit	
	Syed Zia		2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to application filed on December 06, 2001. Original application contained Claims 1-36. Therefore, presently pending claims are 1- 36.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-4, 9-12, 13-16, 21-24, 25-28, and 33-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Abu-Husein (U. S. Patent 6,895,506).

Regarding Claim 1 Abu-Husein teaches and describes a computer program product for controlling a computer to execute a computer program within a computer memory, said computer program product comprising: a loader program; and an encrypted version of said computer program; wherein said loader program is operable to: read said encrypted version of said computer program stored in a program store; decrypt said encrypted version of said computer program to form said computer program in an executable form; load said computer program directly into said computer memory; and trigger execution of said computer program as loaded into said computer memory by said loader program (col.2 line 50 to col.3 line 4, and col.6

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line 53 to col.8 line 10).

Regarding Claim 13 Abu-Husein teaches and describes a method of executing of a computer program within a computer memory, said method comprising the steps of: executing a loader program, said loader program operating to: read an encrypted version of said computer program stored in a program store; decrypt said encrypted version of said computer program to form said computer program in an executable form; load said computer program directly into said computer memory; and trigger execution of said computer program; and executing said computer program as loaded into said computer memory by said loader program (col.2 line 50 to col.3 line 4, and col.6 line 53 to col.8 line 10).

Regarding Claim 25 Abu-Husein teaches and describes a apparatus for executing a computer program within a computer memory, said apparatus comprising: loader program logic; and a program store operable to store an encrypted version of said computer program; wherein said loader program logic is operable to: read said encrypted version of said computer program stored in said program store; decrypt said encrypted version of said computer program to form said computer program in an executable form; load said computer program directly into said computer memory; and trigger execution of said computer program as loaded into said computer memory by said loader program (col.2 line 50 to col.3 line 4, and col.6 line 53 to col.8 line 10).

2. Claims 2-4, 9-12, 14-16, 21-24, 26-28, and 33-36 are rejected applied as above rejecting Claims 1, 13, and 24. Furthermore, Abu-Husein teaches and describes a computer program

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product for controlling a computer to execute a computer program within a computer memory, wherein:

As per Claim 2, said encrypted version of said computer program is encrypted with a private encryption key and said loader program is operable to decrypt said encrypted version of said computer program with a corresponding public key (col.3 line 24 to line 34, and col.5 line 48 to col.6 line 5).

As per Claim 3, said encrypted version of said computer program and said loader program are stored as separate computer files within a computer file store (col.3 line 34 to line 44, and col.6 line 6 to line 22).

As per Claim 4, said loader program is associated with initialization data specifying one or more of: a storage location of said encrypted version of said computer program; a key to be used in decrypting said encrypted version of said computer program; and parameters specifying how said computer program should be loaded into said computer memory for execution (col.6 line 53 to col.7 line 8).

As per Claim 9, said loader program is operable to terminate after triggering execution of said computer program (col.8 line 65 to col.9 line 15).

As per Claim 10, said computer program is operable to terminate said loader program when said computer program is triggered to execute by said loader program (col.8 line 65 to col.9 line 15).

As per Claim 11, said loader program is operable to load said computer program into a memory space within said computer memory separate from a memory space used by said loader program (col.9 line 16 to line 50).

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As per Claim 12, said loader program is operable to load said computer program into an execution stream separate from an execution stream used by said loader program (col.9 line 16 to line 50).

As per Claim 14, said encrypted version of said computer program is encrypted with a private encryption key and said loader program decrypts said encrypted version of said computer program with a corresponding public key (col.3 line 24 to line 34, and col.5 line 48 to col.6 line 5).

As per Claim 15, said encrypted version of said computer program and said loader program are stored as separate computer files within a computer file store (col.3 line 34 to line 44, and col.6 line 6 to line 22).

As per Claim 16, said loader program is associated with initialization data specifying one or more of: a storage location of said encrypted version of said computer program; a key to be used in decrypting said encrypted version of said computer program; and parameters specifying how said computer program should be loaded into said computer memory for execution (col.6 line 53 to col.7 line 8).

As per Claim 21, said loader program terminates after triggering execution of said computer programs (col.8 line 65 to col.9 line 15).

As per Claim 22, said computer program terminates said loader program when said computer program is triggered to execute by said loader program (col.8 line 65 to col.9 line 15).

As per Claim 23, said loader program loads said computer program into a memory space within said computer memory separate from a memory space used by said loader program (col.9 line 16 to line 50).

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As per Claim 24, said loader program loads said computer program into an execution stream separate from an execution stream used by said loader program (col.9 line 16 to line 50).

As per Claim 26, said encrypted version of said computer program is encrypted with a private encryption key and said loader program logic is operable to decrypt said encrypted version of said computer program with a corresponding public key (col.3 line 24 to line 34, and col.5 line 48 to col.6 line 5).

As per Claim 27, said encrypted version of said computer program and said loader program are stored as separate computer files within a computer file store (col.3 line 34 to line 44, and col.6 line 6 to line 22).

As per Claim 28, said loader program logic is associated with initialization data specifying one or more of: a storage location of said encrypted version of said computer program; a key to be used in decrypting said encrypted version of said computer program; and parameters specifying how said computer program should be loaded into said computer memory for execution (col.6 line 53 to col.7 line 8).

As per Claim 33, said loader program logic is operable to terminate after triggering execution of said computer programs (col.8 line 65 to col.9 line 15).

As per Claim 34, said computer program logic is operable to terminate said loader program when said computer program is triggered to execute by said loader program (col.8 line 65 to col.9 line 15).

As per Claim 35, said loader program logic is operable to load said computer program into a memory space within said computer memory separate from a memory space used by said loader program logic (col.9 line 16 to line 50).

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As per Claim 36, said loader program logic is operable to load said computer program into an execution stream separate from an execution stream used by said loader program logic (col.9 line 16 to line 50).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-8, 17-20, and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abu-Husein as applied to claim 1, 13, and 25 above, and further in view of Nachenberg (U. S. Patent 5,826,013).

Regarding Claim 5-8, 17-20, and 29-32 Abu-Husein teaches and describes program product for controlling a computer to execute a computer program within a computer memory. (Fig.1-2, and abstract)

Although the system and method disclosed by Abu-Husein shows all the features of the claimed limitation, such as loader, encrypting and decrypting the computer program (col.6 line 38 to line 45) but Abu-Husein does not specifically disclose malware, such as anti-virus computer program.

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In an analogous art, Nachenberg, on the other hand discloses computing environment for detecting, such as scanning, polymorphic viruses, such as malware, and other malicious software (Nachenberg: Abstract), wherein:

As per Claim 5,17, and 29, said computer program is a malware scanning computer program (col.3 line 3 to line 24).

As per Claim 6,18, and 30 said malware scanning computer program is operable such that once executing said malware scanning computer program scans said loader program for malware (col.3 line 25 to line 53).

As per Claim 7,19, and 31 if said loader program is detected as being infected with malware, then said malware scanning computer program is operable to repair said loader program (col.9 line 50 to line 67).

As per Claim 8, 20, and 32 said malware scanning computer program is operable to scan for malware including one or more of a computer virus, a worm, a Trojan, a banned computer file, a banned word and a banned image (col.6 line 54 to col.7 line 8).

Therefore, It would have been obvious to one ordinary skilled in the art at the time of invention to combine the teachings of Abu-Husein and Nachenberg, because Nachenberg's method of detecting polymorphic viruses, such as malware, by using scanning engine, and a table having an entry for each known polymorphic virus would not only provide an extensible mechanism for malware definition data that can include program code operable to utilize the malware definition data for checking the signature of the malware scanner engine, but will also provide uniform mechanism of updating, and enforcing software authentication and protection (Abu-Husein: col. 10 line 28 to line 43).

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Syed Zia whose telephone number is 571-272-3798. The examiner can normally be reached on 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


SZ

March 02, 2006